

ABSTRACT

Repeaters for use in amplifying optical data signals transmitted through undersea fiber optic cables are disclosed. Raman amplification schemes using 100 or more pump lasers are integrated into industry standard sized pressure vessels for  
5 amplifying optical data signals transmitted through one or more fiber optic pairs. Such repeaters include high density packaging to permit numerous active and passive optical components, as well as significant lengths of optical fiber, to reside within legacy sized pressure vessels.

Patent & Trademark Office